UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/736,296	BUSHEY ET AL.
	Examiner	**Art Unit**	
	Samuel G. Neway	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-16 and 18-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,6,8-10,13-16 and 18-22* is/are rejected.

7)☒ Claim(s) *3-4, and 11-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This is responsive to the Amendment filed on 16 August 2007.

2.   Claims 1 – 6, 8 – 16, and 18 – 22 are still pending while claims 7 and 17 have

been cancelled.

Response to Amendment

3.   The amendment fail to resolve the non-statutory status of claims 1 and 19 – 22

that are still rejected under 35 U.S.C. 101 (see 101 rejection below).

Response to Arguments

4.   Applicant argues that an action-object matrix is not taught in Carpenter. The

Examiner respectfully disagrees. Carpenter discloses that similar words (objects) may

be used to describe different functions (actions) (col. 2, line 66 to col. 3, line 1).

Carpenter further gives an example where the user utters "Checking account" (object)

which may be associated with opening a new account (action) or inquiring about an

existing account (action) (col. 3, lines 1-8) to which Carpenter's system poses a

disambiguating question. Further, since Applicant provides no explicit and deliberate

definition for "action-object matrix" in the specification, it is reasonable to give the claims

their broadest reasonable interpretation in light of the supporting disclosure.

Claim Objections

5.   Claim 1 is objected to because of the following informalities: in line 10, "if neither

an action nor an object are included" is believed to be a typographical error for 'if neither

an action nor an object is included'.

6.   Claims 1 and 19 – 22 are objected to because of the following informalities: the

claims contain subject matter that was not described in the specification in such a way

as to reasonably convey, to one skilled in the relevant art, the metes and bounds of the

claims. The claims are directed to a "computer program product" which was not

described in the specification.

7.   Claim 18 is objected to because of the following informalities: the claim is

directed the "The software of claim 19", however there is no antecedent basis for

"software" in claim 19. It is believed that the claim should be directed to 'The computer

program product of claim 19' and will be treated as such below.

Claim Rejections - 35 USC § 101

8.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

9.   Claims 1 and 19 – 22 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 1 and 19 – 22 are directed to "A computer program product", which, lacking a description in the specification, can reasonably be interpreted as software alone.

Computer programs claimed as computer listings per se (software), i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11.   Claims 2, 5 – 6, 8 – 10, 13 – 16, 18 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Carpenter et al. (USPN 6,269,153).

Claim 2:

Carpenter discloses a method for identifying a routing destination in a service center (Abstract), comprising:

prompting a user to convey a request; receiving a natural language utterance from the user ("routing system 102 receives calls from a caller 216 and provides information and poses questions to the caller 216 using voice prompts produced by the voice synthesizer 202. The caller 216 provides voice responses", col. 3, lines 42-46 FIG. 1 and related text);

comparing the natural language utterance to an action-object matrix ("...the caller 110 may say `Checking accounts, please`. This may indicate that the call is to be directed to the New Accounts Department 104, where the caller 110 can inquire about opening a new checking account, or it may indicate that the caller 110 has a question about his already existing checking account, in which case the call should be directed to the Checking Department 106. In this case, it is necessary for the call routing system 102 to pose a disambiguating question ... ", col. 3, lines 1-13. Note that "Checking accounts" reads on object while "opening a new checking account" and "question about his already existing checking account" read on actions);

identifying a routing destination based upon results of the natural language utterance to action-object matrix comparison; and routing the user to the routing destination ("The proper destination of the call is therefore the Checking Department", col. 3, lines 13-15).

Claim 5:

Carpenter discloses the method of claim 2, further comprising initiating a

disambiguation dialog with the user where an action-object combination cannot be

found in the action-object matrix (FIG. 2, item 208 and related text).

Claim 6:

Carpenter discloses the method of claim 2, further comprising identifying at least

one of an action, an object and an action-object combination using a statistical language

modeling speech recognition utility (FIG. 2, item 204 and related text).

Claim 8:

Carpenter discloses a system for routing a service center user based on a

natural language request (Abstract), comprising:

at least one processor; memory operably associated with the at least one

processor; a program of instructions storable in the memory and executable by the

processor (FIG. 3 and related text),

the program of instructions operable to identify a task to be performed from a

natural language user request and a task matrix and to direct the user to a service

center agent for performance of the task (Abstract) and to

identify an action-object combination from the natural language user request; and

locate a service agent to perform the task based on the identified action-object

combination and the task matrix ("...the caller 110 may say 'Checking accounts,

please`. This may indicate that the call is to be directed to the New Accounts

Department 104, where the caller 110 can inquire about opening a new checking

account, or it may indicate that the caller 110 has a question about his already existing

checking account, in which case the call should be directed to the Checking Department

106. In this case, it is necessary for the call routing system 102 to pose a

disambiguating question ... ", col. 3, lines 1-13. Note that "Checking accounts" reads on

object while "opening a new checking account" and "question about his already existing

checking account" read on actions).

Claim 9:

Carpenter discloses the system of claim 7, further comprising the service center

agent operable to provide automated user assistance in performance of the task

("automatic call routing", Abstract).

Claim 10:

Carpenter discloses the system of claim 7, further comprising the service center

agent operable to provide technician assisted performance of the task (FIG. 2, item 214

and related text).

Claim 13:

Carpenter discloses the system of claim 7, further comprising the program of

instructions operable to identify at least one of an action or an object in the natural

language utterance to identify the task to be performed (FIG. 2, item 204 and related text).

Claim 14:

Carpenter discloses the system of claim 7, further comprising the program of instructions operable to prompt the user for at least one additional natural language user request in response to identifying an action and no object in the natural language user utterance ("If the original query 404 is `car loans`, for example, the question produced may be `Would that be new car loans?` ... ", col. 10, lines 52-59. Note that "car loans" is the action and "new car loan" is one of the objects).

Claim 15:

Carpenter discloses the system of claim 7, further comprising the program of instructions operable to prompt the user for at least one additional natural language user request in response to identifying an object and no action in the natural language user utterance ("...the caller 110 may say `Checking accounts, please`. This may indicate that the call is to be directed to the New Accounts Department 104, where the caller 110 can inquire about opening a new checking account, or it may indicate that the caller 110 has a question about his already existing checking account, in which case the call should be directed to the Checking Department 106. In this case, it is necessary for the call routing system 102 to pose a disambiguating question ... ", col. 3, lines 1-13).

Claim 16:

Carpenter discloses the system of claim 7, further comprising the program of

instructions operable to prompt the user for confirmation of the identified task requested

("If the original query 404 is `car loans`, for example, the question produced may be

`Would that be new car loans?` ... ", col. 10, lines 52-59).

Claim 19:

Carpenter discloses a computer program product comprising instructions for

routing users to an appropriate service center destination (Abstract), the software stored

in computer readable media and when executed operable to:

derive an action-object combination from the natural language utterance (FIG. 2,

item 204 and related text);

match a transaction request derived from a natural language utterance to a

transaction option in a transaction option matrix ("the system matches a query to a

document based on a match of the terms contained in the query with the terms

contained in the document", col. 2, lines 11-23);

facilitate connection between the user and a service module operable to effect

processing of the requested transaction (Abstract).

Claim 18:

Carpenter discloses the computer program product of claim 19, further operable

to initiate a disambiguation dialog with a user in response to a failure to match a

transaction request derived from the natural language utterance to a transaction in the

transaction option matrix (Fig. 2, item 208 and related text).

Allowable Subject Matter

12.   Claims 3 – 4, and 11 – 12 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

13.   The following is a statement of reasons for the indication of allowable subject

matter: the prior art of record, individually or in combination, does not teach the call

routing method as claimed in the allowable claims.

Conclusion

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE.

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Samuel G. Neway whose telephone number is 571-270-

1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David R Hudspeth can be reached on 571-272-7843. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

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SN

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